

IN THE CLAIMS

The listing of claims below replaces all prior listings and versions.

1-25. (Canceled)

26. (Currently amended) A composition for fabricating phase-change material microcapsules, comprising:

a waterborne polyurethane aqueous solution, wherein the ~~weight-ratio concentration~~ of the waterborne polyurethane ~~over the composition is 0.05—0.40 aqueous solution is 5% to 40% by weight;~~

a phase-change material having a polar functional group and a lipophilic moiety;

a lipophilic monomer dissolved in the phase-change material, wherein the ~~weight ratio~~ concentration of the lipophilic monomer ~~over in the phase-change material is between about 3% and about 12% by weight~~ and the lipophilic monomer over the waterborne polyurethane is ~~0.03—0.12 and 0.25—0.5, respectively between about 225% and about 50%,~~ and the lipophilic monomer is isocyanurate of 1,6- hexamethylene diisocyanate, which can react with the waterborne polyurethane to form shells of the microcapsules; and

a solid wax.

27. (Previously presented) The composition of claim 26, wherein the phase-change material is a carboxylic ester.

28. (Previously presented) The composition of claim 27, wherein a carboxylate of the carboxylic ester is selected from a group consisting of formate, acetate and propionate.

29. (Previously presented) The composition of claim 27, wherein a carbon atom number of an alkoxyl group of the carboxylic ester is between 10 and 18.

30. (Currently amended) The composition of claim 26, wherein the ~~weight ratio~~ concentration of the waterborne polyurethane ~~over the composition is 0.10—0.30~~ aqueous solution is between about 15% and 35% by weight.

31. (Currently amended) The composition of claim 26, wherein the ~~weight ratio~~ of the lipophilic monomer ~~over~~ in the phase-change material is ~~0.05—0.10~~ between about 5% and about 10% by weight.

32. (Currently amended) The composition of claim 26, wherein the ~~weight ratio of the~~ lipophilic monomer ~~over~~ the waterborne polyurethane is ~~0.3—0.45~~ between about 30% and about 45%.

33. (Previously presented) The composition of claim 26, wherein a monomer of the waterborne polyurethane comprises 2,2-bis (hydroxymethyl) propionic acid.

34. (Previously presented) The composition of claim 26, wherein a chain extender used to prepare the waterborne polyurethane comprises diamine containing a sulfonate functional group.